MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 1, 2017/2018

BPB2034 – PROGRAMMING FOR BUSINESS APPLICATIONS

(All sections / Groups)

14 OCTOBER 2017
9.00 a.m – 11.00 a.m
(2 Hours)

INSTRUCTIONS TO STUDENTS

1. This question paper consists of 4 pages (including cover page) with 4 questions only.

2. Attempt ALL FOUR questions. All questions carry equal marks and the distribution of the marks for each question is given.

3. Please print all your answers in the Answer Booklet provided.

Question 1 (25 Marks)

a) ABC is a restaurant. This restaurant gives 10% of the foods and beverages' selling price as bonus to its worker. As the manager of the restaurant, you have been asked to monitor the bonus given to the workers. Assuming there are currently 4 workers in the restaurant including manager yourself.

To make your life easier, you need a simple VBA program which gets basic salary, total sales amount sold in restaurant and calculates bonus and total salary given to each workers.

Apply your problem solving and programming skills to answer the questions below.

i. Determine the input, process and output for the given problem (6 Marks)
ii. Draw the flowchart to illustrate the programming algorithm for the given problem. (13 Marks)

b) What are 6 steps of program development cycle? (6 Marks)

Question 2 (25 Marks)

a) Mr. Mars is working in HR department. He is asked to record staff incentives according to months for 5 months. Program below is drafted by him to automatically key in the incentives. What result in excel sheet will be displayed when visual basic code is run? (10 Marks)
NOTE: Draw an excel spreadsheet with columns and row.

```
1.  Sub Question2()
2.      Dim Incentives(4) As Integer
3.
4.      Incentives(0) = 2000
5.      Incentives(1) = 3000
6.      Incentives(2) = 2500
7.      Incentives(3) = 4000
8.      Incentives(4) = 1000
9.
10.     Cells(1, 1).Value = "January"
11.     Cells(1, 2).Value = "February"
12.     Cells(1, 3).Value = "March"
13.     Cells(1, 4).Value = "April"
14.     Cells(1, 5).Value = "May"
15.
16.     For i = 0 To 4
17.         Cells(2, i + 1).Value = Incentives(i)
18.     Next i
19. End Sub
```

Continued...

b) What will be displayed when you add program below into question above and run it? State what type of error will it be if there is any? (6 Marks)

```
1. Sub Question2()
2.
3.      Dim Incentives(4) As Integer
4.
5.      .
6.      .
7.      .
8.     Next i
9.
10. MsgBox Incentives(3)
11. MsgBox Incentives(5)
12. MsgBox Incentive(4)
13.
14. End Sub
```

c) Write a complete program that extract data from cell B3 and B4, adds them together and show the result in B5. If there is no number in cell B3 or B4, the program should display "Error" in msgbox. (9 Marks)

Question 3 (25 Marks)

A restaurant currently having a promotion. The restaurant is offering 10% discount if the total bill amount is above RM100. Total bill amount is calculated by the quantity and the price of the foods. 6% of GST is charged for the total bill amount after the discount.

(a) Write a VBA function to consider and calculate discount amount. (8 Marks)

(b) Write a VBA function to calculate total bills amount after GST charges. (8 Marks)

(c) Write the complete VBA program to automate the billing process for the restaurant. Two functions created in (a) and (b) must be called in the program. (9 Marks)

Question 4 (25 Marks)

Hospital currently offering a space for parking purposes. You are asked to design and write the program to automate billing calculation process and display total bills after parking hour is key in. The parking charges is as below:

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Parking hour	Charges
First 3 hours	RM2 per hour
Subsequent hours	RM1 per hour

NOTE: Any additional minutes will be roundup. For example: 2.01 hours will be considered as 3 hours.

The program should request for the parking hours and display hours spent, charge per hours and parking bills to pay.

You are required to apply the programming techniques and provide solution to this business problem. The following are expected.

a. Determine input, process and output for this problem. (5 Marks)
b. Provide a programming logic to solve this problem in the form of a flowchart. (10 Marks)
c. Write a visual basic code whereby if a button is clicked, an input box will appear to ask for inputs and display the results on a message box. (10 Marks)

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